

Remarks

A. Status of the Claims

Claims 29-43 are currently pending. Claim 29 has been amended to recite the proper antecedent basis. No new matter has been added by this amendment.

B. Rejections Under 35 U.S.C. § 112, Second Paragraph

The Action rejected claims 29-43 as being indefinite because in claim 1 the recitations “the unbound state” and “the differential optical signal” lacked proper antecedent basis. Claim 1 has been amended to recite “an unbound state” and “the optical signal.” Applicant, therefore, requests the withdrawal of this rejection.

C. Rejections Under 35 U.S.C. § 102

1. Stanton is not Available as Prior Art

Claims 29-37 and 40-43 were rejected under § 102(e) as being anticipated by Stanton (U.S. Patent No. 6,680,377). Applicant traverses this rejection.

Stanton is not available as prior art. Attached as Exhibit A to this paper is the signed Rule 131 Declaration of the inventor, Andrew D. Ellington. The declaration establishes that the inventor conceived of and reduced to practice the claimed invention prior to the May 14, 1999 priority date of the Stanton patent. Included as Exhibit 1 to the declaration are laboratory notebook pages documenting the reduction to practice. All of the studies described in the laboratory notebook pages were completed prior to May 14, 1999, and all of the laboratory notebook pages were dated prior to May 14, 1999; however, the dates have been redacted from the copies in Exhibit 1. All of the work described in the declaration was performed in the United States.

Applicant, therefore, respectfully requests the withdrawal of this rejection.

2. *The Claims Are Novel Over Royer*

Claims 29-37 and 40-41 were rejected under § 102(b) as being anticipated by Royer (U.S. Patent No. 5,445,935). Applicant traverses this rejection.

The Action has failed to establish a *prima facie* case of anticipation. The method of the presently claimed invention comprises: providing a signaling aptamer comprising a reporter molecule covalently coupled to an aptamer, wherein in the aptamer's unbound state the optical signal produced by the reporter molecule ***is quenched by the aptamer's conformation*** relative to the optical signal produced by the reporter molecule when the aptamer undergoes a conformational change upon binding to its ligand; contacting the signaling aptamer with the ligand under conditions whereby the signaling aptamer binds the ligand; and ***detecting the optical signal produced by the reporter molecule as a result of the conformational change to the signaling aptamer upon binding the ligand.***

Royer appears to disclose a method of detecting a target compound in a sample by measuring the polarization of a fluorescently labeled molecule. Polarization values depend upon solvent diffusion and tumbling motion of the fluorescent molecule. When a fluorescently labeled molecule binds with the target compound, its size is effectively increased and the tumbling slows, which changes the polarization. Thus, according to Royer's method, the target compound is detected by a change in polarization value which is the result of the slowing of the fluorescently labeled molecule's tumbling speed. In contrast, according to the methods of the present invention the change in the optical signal is the result of a conformational change to the signaling aptamer. Accordingly, Royer does not teach every element of the current claims. Applicant, therefore, respectfully requests the withdrawal of this rejection.

C. **Rejections Under 35 U.S.C. § 103**

Claims 38-39 were rejected under § 103(a) as being unpatentable over Stanton (U.S. Patent No. 6,680,377) in view of Szostak (U.S. Patent 5,631,146). The Action states that Stanton does not teach anti-adenosine aptamers as in claims 20-22 and 24. The Action asserts, however, that Szostak teaches anti-adenosine aptamers, and that it would have been obvious to apply the anti-adenosine aptamers of Szostak to the target detection method of Stanton. Applicants

traverse this rejection.

As described above, Stanton is not available as prior art and, therefore, cannot form the basis of this obviousness rejection. Applicant, therefore, respectfully requests the withdrawal of this rejection.

D. Conclusion

In view of the above, Applicant submits that all of the claims are in condition for allowance. The Examiner is invited to contact the undersigned attorney at (512) 536-5654 with any questions, comments, or suggestions relating to the referenced patent application.

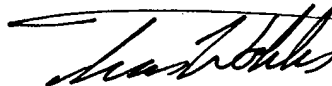
REQUEST FOR EXTENSION OF TIME

Pursuant to 37 C.F.R. § 1.136(a), Applicants petition for an extension of time of three months to and including December 21, 2005, in which to respond to the Office Action dated June 21, 2005.

Pursuant to 37 C.F.R. § 1.17, a check in the amount of \$510.00 is enclosed, which is the process fee for a three-month extension of time for a small entity.

If the check is inadvertently omitted, or should any additional fees under 37 C.F.R. §§ 1.16 to 1.21 be required for any reason relating to the enclosed materials, or should an overpayment be included herein, the Commissioner is authorized to deduct or credit said fees from or to Fulbright & Jaworski Deposit Account No. 50-1212/CLFR:200US.

Respectfully submitted,



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Date: December 21, 2005